

Lifecycle Phases:

The CMS IT Investment Management Process consists of three primary phases: Business Case Analysis Phase, IT Investment Management Phase, and Post-Implementation Review & Assessment Phase. Each of these three primary phases is further partitioned into additional subordinate phases.

1.0 Business Case Analysis Phase:

- 1.1 Investment Analysis Phase

2.0 IT Investment Management Phase:

- 2.1 Acquisition Phase
- 2.2 Requirements Analysis Phase
- 2.3 Design & Engineering Phase
- 2.4 Development Phase
- 2.5 Testing Phase
- 2.6 Implementation Phase
- 2.7 Operations & Maintenance Phase

3.0 Post-Implementation Review & Assessment Phase:

- 3.1 Operations & Maintenance Phase
- 3.2 Retirement Phase

1.1 Investment Analysis Phase

Summary Description:

During this preliminary system development life cycle (SDLC) phase, the Project Owner/Manager prepares an IT Fact Sheet to obtain initial funding for a project. The Financial Management Investment Board (FMIB) approves seed money for the Project Owner/Manager to hire a contractor to prepare the Business Case Analysis (BCA) that justifies the project. The resultant BCA is subsequently presented to authorizing groups for review and the FMIB is briefed in order for the project to obtain approval for funding to begin the formal phases of the SDLC.

High-Level Work Breakdown Structure (WBS):

The Investment Analysis Phase is comprised of the following primary activities:

- 1.1.1 Prepare IT Fact Sheet Deliverable
- 1.1.2 Perform FMIB Review to Approve Seed Money for BCA Review
- 1.1.3 Establish Business Case Analysis (BCA) Support Team Resource
- 1.1.4 Prepare Business Case Analysis (BCA) Statement of Work (SOW) / HHS-393 Form Deliverable
- 1.1.5 Perform Review of BCA SOW/393 Review
- 1.1.6 Develop Business Case Analysis (BCA) Deliverable
- 1.1.7 Perform Review of Business Case Analysis (BCA) Review
- 1.1.8 Perform FMIB Briefing & Review to Approve Funding to Proceed Review

Key Processes:

IT Investment Management Budget Process

Business Case Analysis (BCA) Process

Business Case Analysis (BCA) Acquisition Process

Relevant Policies:

IT Investment Management Policy

Requirements Engineering Policy

2.1 Acquisition Phase

Summary Description:

During this preliminary system development life cycle (SDLC) phase, a Statement of Work (SOW) and the Request for Proposal (RFP), if necessary, are prepared in preparation for the hiring of a contractor to perform some or all of the lifecycle activities. More than one contractor may be used to complete the various lifecycle activities. The RFP is released to industry. Selection criterion is developed for the evaluation of contractor proposals submitted in response to the SOW/RFP. The proposal(s) are evaluated and a contract award is made. For those systems where privacy compliance is a concern, a new System of Records (SOR) may be needed and/or a Data Use Agreement (DUA) completed. Additional reporting requirements, which must be met by only Level D projects, are also performed during this phase of the system life cycle.

High-Level Work Breakdown Structure (WBS):

The Acquisition Phase is comprised of the following primary activities:

- 2.1.1 Update IT Fact Sheet Deliverable
- 2.1.2 Prepare Initial Exhibit 300 Deliverable (Level D projects only)
- 2.1.3 Perform Initial Department/OMB Clearance Review (Level D projects only)
- 2.1.4 Perform PRCP Review for Ongoing Project Implementation Support Review
- 2.1.5 Initiate New System of Records (SOR) Deliverable
- 2.1.6 Prepare System Development Life Cycle (SDLC) Statement of Work (SOW) / HHS-393 Form Deliverable
- 2.1.7 Perform Review of SDLC SOW/393 Review
- 2.1.8 Perform Proposal Review & Award Review
- 2.1.9 Prepare Data Use Agreement (DUA) Deliverable
- 2.1.10 Perform Review of Data Use Agreement (DUA) Review

Key Processes:

System Development Life Cycle (SDLC) Acquisition Process

System of Records (SOR) Process

Department / OMB Clearance Process for Level D Projects

Relevant Policies:

IT Investment Management Policy

IT Contract Management Policy

Privacy Compliance Management Policy

2.2 Requirements Analysis Phase

Summary Description:

During this system development life cycle (SDLC) phase, the user and system requirements that were documented in the Business Case Analysis (BCA) are analyzed. The IT Fact Sheet is also updated to reflect current project information. For those systems where privacy compliance is a concern, the new System of Records (SOR) that was initiated during the Acquisition Phase is further enhanced. In addition, the development of a new System Security Plan (SSP) is initiated during the Requirements Analysis Phase. Other activities associated with Project Management Level processes and deliverables that are to be completed during this lifecycle phase, but which have not yet been included in the Roadmap, are also performed. As the Roadmap content continues to evolve, so too will the Summary Description for the Requirements Analysis Phase to address these other Project Management Level activities.

High-Level Work Breakdown Structure (WBS):

The Requirements Analysis Phase is comprised of the following primary activities. As such, the Work Breakdown Structure (WBS) for the Requirements Analysis Phase is notably incomplete. Only those activities that are associated with the Investment Management Level processes and deliverables that have been defined thus far for the Roadmap are included in this WBS. As the Roadmap content continues to evolve, so too will the WBS for the Requirements Analysis Phase.

- 2.2.1 Analyze User and System Requirements from Business Case Analysis (BCA) Deliverable
- 2.2.2 Update IT Fact Sheet Deliverable
- 2.2.3 Enhance System of Records (SOR) Deliverable
- 2.2.4 Initiate New System Security Plan (SSP) Deliverable

Key Processes:

System of Records (SOR) Process
System Security Plan (SSP) Process

Relevant Policies:

IT Investment Management Policy
IT Security Policy
Privacy Compliance Management Policy
Requirements Engineering Policy

2.3 Design & Engineering Phase

Summary Description:

During this system development life cycle (SDLC) phase, the IT Fact Sheet is updated to reflect current project information and the necessary inputs are prepared for the performance of the CIO Initial IT Architecture Review & Certification. Once the initial design is certified, approval can be sought from the Financial Management Investment Board (FMIB) to release funds for the project to proceed into the subsequent Development and Testing Phases. For those systems where privacy compliance is a concern, the System of Records (SOR) is finalized and begins the associated formal review and clearance process. If appropriate, a Computer Match Agreement (CMA) and/or Inter/Intra-agency Agreement (IA) may also be prepared and subsequently reviewed. In addition, the System Security Plan (SSP) is further enhanced during this life cycle phase. Other activities associated with Project Management Level processes and deliverables that are to be completed during this lifecycle phase, but which have not yet been included in the Roadmap, are also performed. As the Roadmap content continues to evolve, so too will the Summary Description for the Design & Engineering Phase to address these other Project Management Level activities.

High-Level Work Breakdown Structure (WBS):

The Design & Engineering Phase is comprised of the following primary activities. Only those activities that are associated with the Investment Management Level processes and deliverables that have been defined thus far for the Roadmap are included in this Work Breakdown Structure (WBS). As the Roadmap content continues to evolve, so too will the WBS for the Design & Engineering Phase.

- 2.3.1 Update IT Fact Sheet Deliverable
- 2.3.2 Prepare Inputs for CIO Initial IT Architecture Review & Certification Deliverable
- 2.3.3 Perform CIO Initial IT Architecture Review & Certification Review
- 2.3.4 Perform FMIB Funding Approval for the Development & Testing Phases Review
- 2.3.5 Prepare Final System of Records (SOR) Deliverable
- 2.3.6 Perform Review of System of Records (SOR) Review
- 2.3.7 Prepare Computer Match Agreement (CMA) Deliverable
- 2.3.8 Perform Review of Computer Match Agreement (CMA) Review
- 2.3.9 Prepare Inter/Intra-agency Agreement (IA) Deliverable
- 2.3.10 Perform Review of Inter/Intra-agency Agreement (IA) Review
- 2.3.11 Enhance System Security Plan (SSP) Deliverable

Key Processes:

System of Records (SOR) Process
System Security Plan (SSP) Process

Relevant Policies:

IT Investment Management Policy
Privacy Compliance Management Policy
IT Security Policy

2.4 Development Phase

Summary Description:

During this system development life cycle (SDLC) phase, the IT Fact Sheet is updated to reflect current project information and the necessary inputs are prepared for the performance of the CIO Final IT Architecture Review & Certification. Once the final design is certified, approval can be sought from the Financial Management Investment Board (FMIB) to release funds for the project to proceed into the Implementation Phase. In addition, the System Security Plan (SSP) is further enhanced during this life cycle phase. Other activities associated with Project Management Level processes and deliverables that are to be completed during this lifecycle phase, but which have not yet been included in the Roadmap, are also performed. As the Roadmap content continues to evolve, so too will the Summary Description for the Development Phase to address these other Project Management Level activities.

High-Level Work Breakdown Structure (WBS):

The Development Phase is comprised of the following primary activities. Only those activities that are associated with the Investment Management Level processes and deliverables that have been defined thus far for the Roadmap are included in this Work Breakdown Structure (WBS). As the Roadmap content continues to evolve, so too will the WBS for the Development Phase.

- 2.4.1 Update IT Fact Sheet Deliverable
- 2.4.2 Prepare Inputs for CIO Final IT Architecture Review & Certification Deliverable
- 2.4.3 Perform CIO Final IT Architecture Review & Certification Review
- 2.4.4 Enhance System Security Plan (SSP) Deliverable
- 2.4.5 Perform FMIB Funding Approval for the Implementation Phase Review

Key Processes:

System Security Plan (SSP) Process

Relevant Policies:

IT Investment Management Policy

IT Security Policy

2.5 Testing Phase

Summary Description:

The Testing Phase of the system development life cycle (SDLC) is primarily concerned with the Project Management Level process of exercising and evaluating the system to demonstrate that it satisfies the established requirements or to identify differences between expected and actual results. At the Investment Management Level, however, the IT Fact Sheet is updated during this phase to reflect current project information. In addition, the System Security Plan (SSP) is completed in preparation for the certification of the SSP during the subsequent Implementation Phase. Other activities associated with Project Management Level processes and deliverables that are to be completed during the Testing Phase, but which have not yet been included in the Roadmap, are also performed. As the Roadmap content continues to evolve, so too will the Summary Description for the Testing Phase to address these other Project Management Level activities.

High-Level Work Breakdown Structure (WBS):

The Testing Phase is comprised of the following primary activities. As such, the Work Breakdown Structure (WBS) for the Testing Phase is notably incomplete. Those activities that are associated with the Investment Management Level processes and deliverables that have been defined thus far for the Roadmap are included in this WBS. In addition, a WBS element is also included to address the fact that Project Management Level testing activities are known to occur during the Testing Phase, which have not yet been incorporated into the Roadmap. As the Roadmap content continues to evolve, so too will the WBS for the Testing Phase.

2.5.1 Update IT Fact Sheet Deliverable

2.5.2 Prepare Final System Security Plan (SSP) Deliverable

2.5.3 Perform Project Management Level Testing Activities (To Be Determined)

Key Processes:

System Security Plan (SSP) Process

Relevant Policies:

IT Investment Management Policy

IT Security Policy

2.6 Implementation Phase

Summary Description:

During this system development life cycle (SDLC) phase, the IT Fact Sheet is updated to reflect current project information. The final version of the System Security Plan (SSP) is certified and subsequently accredited. The Implementation Readiness Review (IRR) Data Sheet is prepared as input for the performance of the IRR. Approval is also sought from the Financial Management Investment Board (FMIB) to release funds for the subsequent Operations & Maintenance Phase. Other activities associated with Project Management Level processes and deliverables that are to be completed during this lifecycle phase, but which have not yet been included in the Roadmap, are also performed. As the Roadmap content continues to evolve, so too will the Summary Description for the Implementation Phase to address these other Project Management Level activities.

High-Level Work Breakdown Structure (WBS):

The Implementation Phase is comprised of the following primary activities. Only those activities that are associated with the Investment Management Level processes and deliverables that have been defined thus far for the Roadmap are included in this Work Breakdown Structure (WBS). As the Roadmap content continues to evolve, so too will the WBS for the Implementation Phase.

- 2.6.1 Update IT Fact Sheet Deliverable
- 2.6.2 Perform System Security Plan (SSP) Certification Review
- 2.6.3 Perform System Security Plan (SSP) Accreditation Review
- 2.6.4 Prepare Implementation Readiness Review (IRR) Data Sheet Deliverable
- 2.6.5 Perform Implementation Readiness Review (IRR) Review
- 2.6.6 Perform FMIB Funding Approval for the Operations & Maintenance Phase Review

Key Processes:

System Security Plan (SSP) Process

Relevant Policies:

IT Investment Management Policy

IT Security Policy

Implementation Readiness Policy

2.7 / 3.1 Operations & Maintenance Phase

Summary Description:

This system development life cycle (SDLC) phase is split between the higher-level IT Investment Management Phase and the Post-Implementation Review & Assessment Phase of the system life cycle. As part of the IT Investment Management Phase, the system becomes fully operational in the production environment. During the Post-Implementation Review & Assessment Phase, continued maintenance of the system (e.g., bug fixing, minor modifications/ enhancements, performance tuning, and/or customer service) is performed. During both higher-level phases, the IT Fact Sheet is updated to reflect current project information. Other activities associated with Project Management Level processes and deliverables that are to be completed during the Operations & Maintenance Phase, but which have not yet been included in the Roadmap, are also performed. As the Roadmap content continues to evolve, so too will the Summary Description for the Operations & Maintenance Phase to address these other Project Management Level activities.

High-Level Work Breakdown Structure (WBS):

The Operations & Maintenance Phase is comprised of the following primary activities. The Work Breakdown Structure (WBS) for the Operations & Maintenance Phase is split between the activities that occur under the IT Investment Management Phase and those that occur under the Post-Implementation Review & Assessment Phase of the system life cycle. The WBS for the Operations & Maintenance Phase is notably incomplete. Only those activities that are associated with the Investment Management Level processes and deliverables that have been defined thus far for the Roadmap are included in this WBS. As the Roadmap content continues to evolve, so too will the WBS for the Operations & Maintenance Phase.

2.0 IT Investment Management Phase

2.7 Operations & Maintenance Phase

2.7.1 Update IT Fact Sheet Deliverable

3.0 Post-Implementation Review & Assessment Phase

3.1 Operations & Maintenance Phase

3.1.1 Update IT Fact Sheet Deliverable

3.1.2 Perform System Security Plan (SSP) Re-Certification Review

3.1.3 Perform System Security Plan (SSP) Re-Accreditation Review

3.1.4 Prepare Annual Exhibit 300 Deliverable (Level D projects only)

3.1.5 Perform Annual Department/OMB Clearance Review (Level D projects only)

Key Processes:

System Security Plan (SSP) Process

Department/OMB Clearance Process for Level D Projects

Relevant Policies:

IT Investment Management Policy

IT Security Policy

3.2 Retirement Phase

Summary Description:

During this last phase in the system life cycle, the system is formally retired and ceases to exist as an operational system. Thus far, no specific activities associated with Investment Management or Project Management Level processes and deliverables that are to be completed during this lifecycle phase have been included in the Roadmap. As the Roadmap content continues to evolve, so too will the Summary Description for the Retirement Phase to address the activities performed during this final system lifecycle phase.

High-Level Work Breakdown Structure (WBS):

Thus far, no Investment Management Level or Project Management Level processes and deliverables have been included in the Roadmap for the Retirement Phase. However, as the Roadmap content continues to evolve, so too will the WBS for the Retirement Phase.

Key Processes:

To Be Determined

Relevant Policies:

System Retirement Policy